

IN THE CLAIMS

Please cancel claim 28.

Please add the following new claims:

29. A longitudinally flexible stent, comprising:
a plurality of interconnected cylindrical elements aligned along a stent longitudinal axis, each cylindrical element having a shape configured to enable the cylindrical element to expand with the inflation of an expandable member disposed therein; and
wherein each of the cylindrical elements has a diameter and a length, the length of each cylindrical element being less than the diameter of the cylindrical element upon inflation of the expandable member.

30. The stent of claim 29, wherein upon expansion there is no appreciable shortening of the stent.

31. The stent of claim 29, wherein the shape includes U-shaped members.

32. The stent of claim 29, wherein the stent is formed from a single piece of tubing.

33. The stent of claim 29, wherein the cylindrical elements are interconnected by connecting elements.

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6 34. The stent of claim ⁵~~33~~, wherein at least two connecting elements connect adjacent cylindrical elements.

7 35. The stent of claim ⁵~~33~~, wherein at least one connecting element between a first cylindrical element and a second cylindrical element is circumferentially offset from at least one connecting element between the second cylindrical element and a third cylindrical element.

8 36. The stent of claim ¹~~29~~, wherein each cylindrical element is formed individually.

9 37. The stent of claim ⁸~~36~~, wherein the individual cylindrical elements are interconnected by at least one weld connection.

10 38. The stent of claim ¹~~29~~, wherein the shapes of adjacent cylindrical elements are in phase.

11 39. The stent of claim ¹~~29~~, wherein the shapes of adjacent cylindrical elements are out of phase.

40. A balloon expandable longitudinally flexible stent, comprising:
a stent pattern having a plurality of single undulating portions extending circumferentially about a longitudinal axis;

5 each single undulating portion being formed individually and thereafter being
connected together along the longitudinal axis;

at least one of the single undulating portions having a length and a diameter,
the length being less than the diameter upon inflation of the balloon; and
wherein there is no appreciable shortening of the stent upon inflation of the
balloon.

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41. The stent of claim 40, wherein at least two adjacent single undulating portions
are interconnected by connecting elements.

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42. The stent of claim 40, wherein at least two adjacent single undulating portions
are interconnected by at least one weld connection.

43. A longitudinally flexible stent, comprising:

a stent pattern having a plurality of single undulating portions extending
circumferentially about a longitudinal axis, the single undulating portions being connected together
along the longitudinal axis;

the plurality of single undulating portions having open ends and closed ends,
at least one of the open ends being no wider than one of the closed ends when the stent is mounted
on an expandable member before expansion.